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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,283	11/02/2001	Charles Clark	2001P19665US	1249

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Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
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EXAMINER

KIM, RICHARD H

ART UNIT PAPER NUMBER

2871

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,283

Applicant(s)

CLARK ET AL.

Examiner

Richard H Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,7 and 8 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-4 and 11-16 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. “Vertically adjustable”, “attachable” and “operable” are non-enabling. For example “attachable” does not necessarily indicated that something is “attached”. Moreover, “characterization mode” is not a structural limitation. Features critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). It is also noted that the recitation that an element is “capable of” performing a function (i.e. adjustable, attachable and operable) is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1, 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes (US 5,754,622) in view of Smith et al. (US 6,282,264 B1).

Referring to claim 1, Hughes discloses a portal imaging device positioning apparatus attachable to a radiation therapy device gantry, comprising a support attachable to the gantry (see Fig. 1, ref. 6); and a portal imaging device attachable to the support (see Fig. 1, ref. 90). However, the reference does not disclose that the device comprises a vertically-adjustable portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane, and wherein the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane in a characterization mode.

Smith et al. disclose a device comprising a vertically adjustable portal imaging device positioner attachable to a support (see Fig. 1, ref. 16, 10, 34) operable in a first mode and a second mode (see col.17, lines 52-55), wherein in the first mode the portal device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane (see Fig. 3, ref. 34), and wherein in the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane (see Fig. 4, ref. 34) in a characterization mode (col. 17, lines 52-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vertically-adjustable portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging

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device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane, and wherein the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification provides a “safe, reliable, convenient and effective way to position such systems for a wide variety of imaging protocols...” (see col. 2, lines 50-55). Moreover, maintaining the image panel to receive radiation substantially at the patient plane in a characterization mode would enable one to “perform a low-dose preview image prior to the final full-radiation image”, to insure the patient is positioned as desired (see col. 17, lines 52-55). Examiner interprets that the “characterization” mode can be applied to any desired position of the imaging device, including at the patient plane shown in Figure 4.

Referring to claim 2, Hughes and Smith et al. disclose the device previously recited. However, Hughes does not disclose the device including a vertical drive unit adjustably attachable at a mounting cavity to the support; and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position.

Smith et al. disclose a device including a vertical drive unit adjustably attachable at a mounting cavity to the support (see Fig. 1, ref. 17; col. 5, lines 26-41); and a mounting unit assembly adjustably attachable to the vertical drive unit (see Fig. 1, ref. 22, 30 and 32), and adapted to deploy the imaging panel from a vertical position to a horizontal position (see Fig. 1 and 3, ref. 30; col. 5, lines 48-64; col. 3, lines 6-30).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vertical drive unit adjustably attachable at a mounting cavity to the support; and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification would enable a variety of x-ray protocols, while necessitating the use of only one detector (see col. 2, lines 58-67).

Referring to claims 9, Smith et al. discloses a portal imaging system comprising a radiation delivery apparatus (see Fig. 1, ref. 46); and means for deploying an imaging panel in a first mode to receive radiation from the apparatus below a patient plane and in a second characterization mode at the patient plane (see col. 17, lines 52-55; Fig. 3, Fig. 4, ref. 34); the deploying means comprising a vertical drive unit assembly attachable at a mounting cavity to a support (see Fig. 1, ref. 17 and 20); and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position (see Fig. 1, 3, and 4, ref. 22, 30, and 32).

Allowable Subject Matter

3. Claims 5, 7 and 8 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to teach or disclose in light of the specifications a portal imaging device positioning method comprising adjusting an image panel operably secured to a radiation therapy device gantry from a first position in a first mode below a patient plane to a second position in a second

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characterization mode at a patient plane; and a portal imaging device positioning method comprising adjusting the vertical drive unit in the first mode such that a top of the support is substantially adjacent to a top of a mounting cavity on the vertical drive unit; and adjusting the vertical drive unit in the second mode such that a bottom of the of the support is substantially adjacent to a bottom of the mounting cavity.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5, 7-9, and 11-16 have been considered but are moot in view of the new ground(s) of rejection.
5. Applicant's arguments filed 20 January 2004 have been fully considered but they are not persuasive.
6. In response to Applicant's argument that the references do not relate to a portal imaging device positioner [that] maintains said the imaging panel to receive radiation substantially at the patient plane in a characterization mode, Examiner submits that such a limitation is indicated in column 17, lines 52-55. Examiner interprets that the "characterization" mode can be applied to any desired position of the imaging device, including at the patient plane shown in Figure 4.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

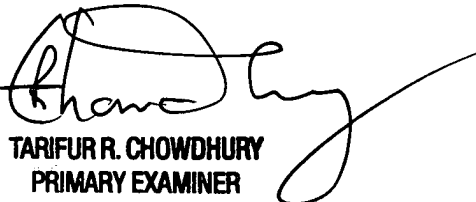
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim
Examiner

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RHK



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER